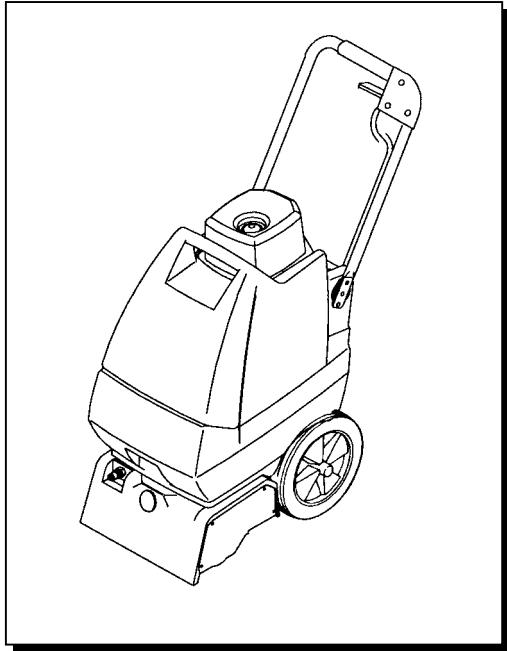


EXPERTTM

CARPET EXTRACTOR



MODEL
EXP

POWER SOURCE
115V ELECTRIC

QUEST[®] ... for Continuous Improvement.
Windsor's Quality Management System is Certified ISO 9001.

Read these instructions before using the machine

AB

MACHINE DATA LOG/OVERVIEW

MODEL _____

DATE OF PURCHASE _____

SERIAL NUMBER _____

SALES REPRESENTATIVE # _____

DEALER NAME _____

OPERATIONS GUIDE NUMBER _____

PUBLISHED _____

YOUR DEALER

Name: _____

Address: _____

Phone Number: _____

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HOW TO USE THIS MANUAL

This manual contains the following sections:

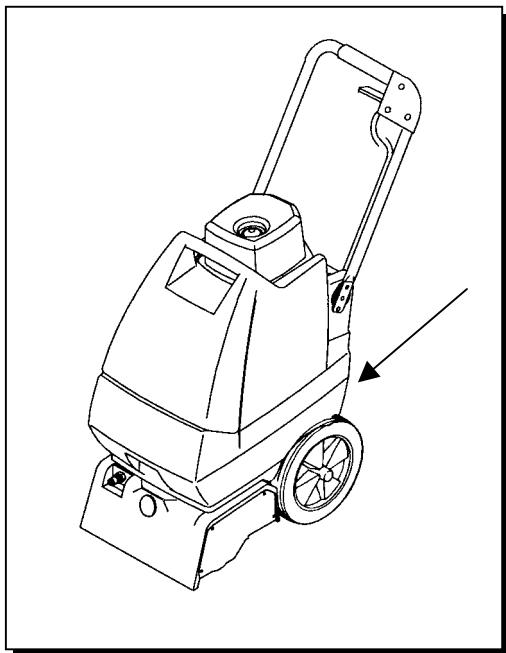
- HOW TO USE THIS MANUAL
- SAFETY
- OPERATIONS
- MAINTENANCE
- PARTS LIST

The HOW TO USE THIS MANUAL section will tell you how to find important information for ordering correct repair parts.

Parts may be ordered from authorized dealers. When placing an order for parts, the machine model and machine serial number are important. Refer to the MACHINE DATA box which is filled out during the installation of your machine. The MACHINE DATA box is located on the inside of the front cover of this manual.

MODEL _____
DATE OF PURCHASE _____
SERIAL NUMBER _____
SALES REPRESENTATIVE # _____
DEALER NAME _____
OPERATIONS GUIDE NUMBER _____
PUBLISHED _____

The model and serial number of your machine is located on the lower left back panel.



The SAFETY section contains important information regarding hazard or unsafe practices of the machine. Levels of hazards is identified that could result in product or personal injury, or severe injury resulting in death.

The OPERATIONS section is to familiarize the operator with the operation and function of the machine.

The MAINTENANCE section contains preventive maintenance to keep the machine and its components in good working condition. They are listed in this general order:

- Periodic
- Daily/Regular
- Troubleshooting

The PARTS LIST section contains assembled parts illustrations and corresponding parts list. The parts lists include a number of columns of information:

- **REF** – column refers to the reference number on the parts illustration.
- **PART NO.** – column lists the part number for the part.
- **QTY** – column lists the quantity of the part used in that area of the machine.
- **DESCRIPTION** – column is a brief description of the part.
- **SERIAL NO. FROM** – column indicates the first machine the part number is applicable to. When the machine design has changed, this column will indicate serial number of applicable machine. The main illustration shows the most current design of the machine. The boxed illustrations show older designs. If column has an asterisk (*), call manufacturer for serial number.
- **NOTES** – column for information not noted by the other columns.

NOTE: If a service or option kit is installed on your machine, be sure to keep the KIT INSTRUCTIONS which came with the kit. It contains replacement parts numbers needed for ordering future parts.

NOTE: The 98# on the lower left corner of the front cover is the part number for this manual.

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precaution must always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE.

This machine is for commercial use.



WARNING:

To reduce the risk of fire, electric shock, or injury:

Connect to a properly grounded outlet. See Grounding Instructions.

Do not leave the machine unattended. Unplug machine from outlet when not in use and before maintenance or service.

Use only indoors. Do not use outdoors or expose to rain.

Do not allow machine to be used as a toy. **Close attention** is necessary when used by or near children.

Use only as described in this manual. Use only manufacturer's recommended components and attachments.

Do not use damaged electrical cord or plug. Follow all instructions in this manual concerning grounding the machine. If the machine is **not working properly**, has been dropped, damaged, left outdoors, or dropped into water, return it to an authorized service center.

Do not pull or carry machine by electrical cord, use as a handle, close a door on cord, or pull cord around sharp edges or corners.

Do not run machine over cord. **Keep** cord away from heated surfaces.

Do not unplug machine by pulling on cord. To unplug, grasp the electrical plug, not the electrical cord.

Do not handle the electrical plug or machine with wet hands.

Do not operate the machine with any openings blocked. Keep openings free of debris that may reduce airflow.

This machine is intended for cleaning carpet only.

Do not vacuum anything that is burning or smoking, such as cigarettes, matches, or hot ashes.

This machine is not suitable for picking up health endangering dust.

Turn off all controls before unplugging.

Machine can cause a fire when operating near flammable vapors or materials. Do not operate this machine near flammable fluids, dust or vapors.

This machine is suitable for commercial use, for example in hotels, schools, hospitals, factories, shops and offices for more than normal housekeeping purposes.

Maintenance and repairs must be done by qualified personnel.

If foam or liquid comes out of machine, switch off immediately.

SAVE THESE INSTRUCTIONS

HAZARD INTENSITY LEVEL

The following symbols are used throughout this guide as indicated in their descriptions:

HAZARD INTENSITY LEVEL

There are three levels of hazard intensity identified by signal words -**WARNING** and **CAUTION** and **FOR SAFETY**. The level of hazard intensity is determined by the following definitions:

⚠ WARNING

WARNING - Hazards or unsafe practices which COULD result in severe personal injury or death.

⚠ CAUTION

CAUTION - Hazards or unsafe practices which could result in minor personal injury or product or property damage.

FOR SAFETY: To Identify actions which must be followed for safe operation of equipment.

Report machine damage or faulty operation immediately. Do not use the machine if it is not in proper operating condition. Following is information that signals some potentially dangerous conditions to the operator or the equipment. Read this information carefully. Know when these conditions can exist. Locate all safety devices on the machine. Please take the necessary steps to train the machine operating personnel.

FOR SAFETY:

DO NOT OPERATE MACHINE:

Unless Trained and Authorized.

Unless Operation Guide is Read and understood.

In Flammable or Explosive areas.

In areas with possible falling objects.

WHEN SERVICING MACHINE:

Avoid moving parts. Do not wear loose clothing; jackets, shirts, or sleeves when working on the machine. Use Windsor approved replacement parts.

GROUNDING INSTRUCTIONS

THIS PRODUCT IS FOR COMMERCIAL USE ONLY.

ELECTRICAL:

In the USA this machine operates on a standard 15 amp 115V, 60 hz, A.C. power circuit. The amp, hertz, and voltage are listed on the data label found on each machine. Using voltages above or below those indicated on the data label will cause serious damage to the motors.

GROUNDING INSTRUCTIONS:

This appliance must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

This appliance is for use on a nominal 115-volt circuit, and has a grounded plug that

looks like the plug in "Fig. A". A temporary adaptor that looks like the adaptor in "Fig. C" may be used to connect this plug to a 2-pole receptacle as shown in "Fig. B", if a properly grounded outlet is not available. The temporary adaptor should be used only until a properly grounded outlet (Fig. A) can be installed by a qualified electrician. The green colored rigid ear, lug, or the like extending from the adaptor must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by a metal screw.

PROPER GROUNDING

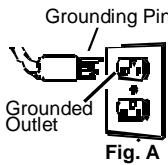


Fig. A

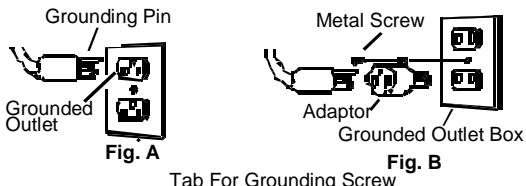
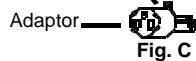


Fig. B



NOTE: In Canada, the use of a temporary adaptor is not permitted by the Canadian Electrical Code

! WARNING:

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

OPERATIONS

HOW IT OPERATES:

This machine is a portable, easy to use carpet extractor designed for use indoors, in a household or light industrial environment.

When operating as a carpet extractor, cleaning solution is dispensed onto the carpet and agitated by a rotating brush. The solution is then extracted from the carpet by a vacuum. The head on the brush is floating, allowing it to automatically adjust to various carpet depths while applying an effective brush pressure.

⚠ WARNING:

1. **To avoid electric shock use indoors only.**
2. **To reduce risk of fire, do not use volatile substances.**
3. **Use only cleaners intended for carpet application.**

INSPECTION:

Carefully unpack and inspect your extractor for shipping damage. Each unit is operated and thoroughly inspected before shipping, and any damage is the responsibility of the carrier, who should be notified immediately.

ELECTRICAL:

This extractor operates on a standard 15 amp 120 volt AC circuit. This is the typical wall receptacle found in household and light industrial environments. Voltages below 105 volts or above 125 volts could cause serious damage to motors. *Special voltage models available. A wiring diagram is mounted inside the rear control panel of machine. A copy of the wiring diagram is included in this Owner's Guide.

EXTENSION CORDS:

If an extension cord is used, the wire size must be at least one size larger than the power cord on the machine: This extractor is equipped with a 25 ft. 16/3 power cord.

⚠ CAUTION:

To avoid possible distortion of polyethylene solution/recovery tanks, DO NOT USE WATER TEMPERATURE THAT EXCEEDS 140 F (60 C).

CHEMICALS

Use only the suitable chemicals listed below. Using incompatible chemicals will damage the machine. Damages of this type are not covered under warranty. Carefully read ingredients on manufacturer's label before using any product in this machine.

Suitable Chemicals

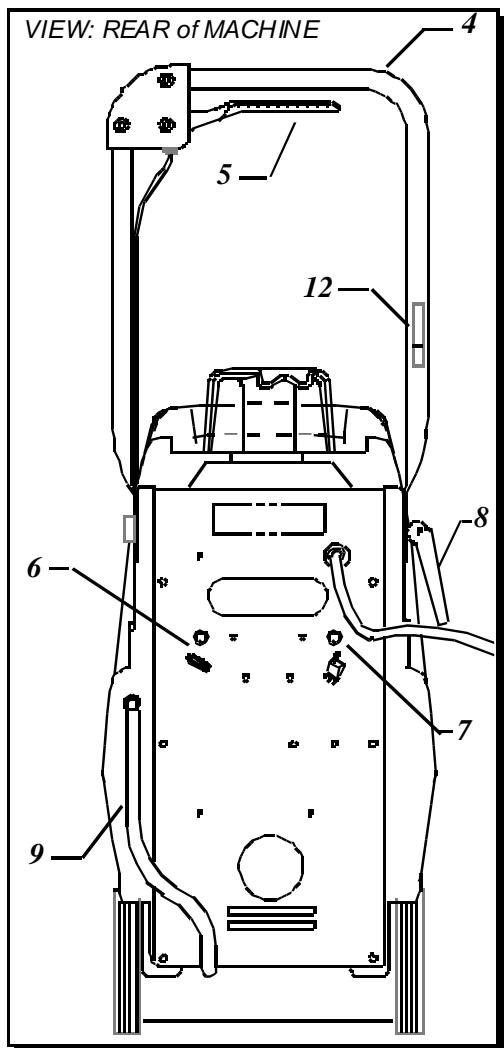
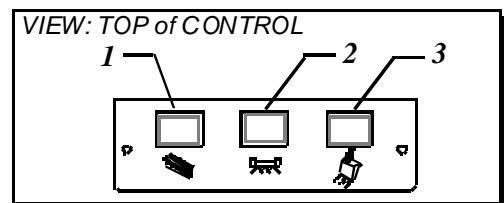
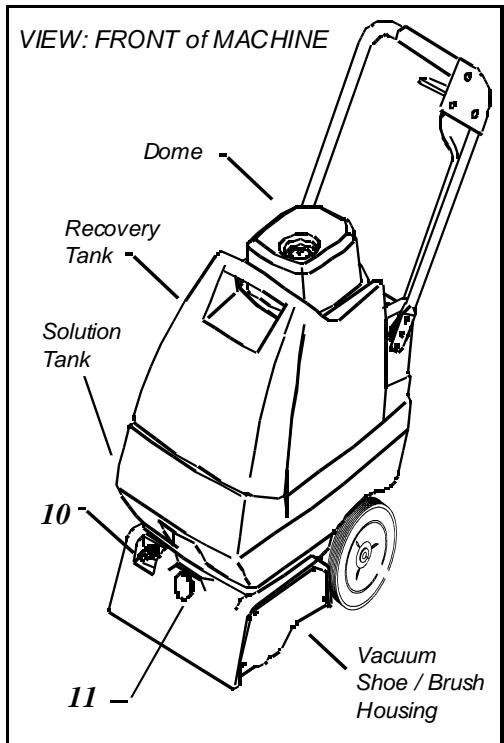
Alkalis
Defoaming Agents
Detergents
Soaps
Vinegar
Hydroxides

Incompatible Chemicals

Aldehydes; Butyls
Carbon Tetrachloride
Chlorinated Bleaches
Chlorinated Hydrocarbons
Trichlorethylene
Phenols; Methyls (MEK)
Perchlorethylene (perc)
Aromatic Hydrocarbons
D-Limonene

CONTROLS

- 1 **Brush Switch On/Off.** Turns brush motor on and off.
- 2 **Solution Switch On/Off.** Turns solution pump on and off.
- 3 **Vac Switch On/Off.** Turns vacuum motor on and off.
- 4 **Main Handle.**
- 5 **Solution Lever.** Controls the amount of flow of solution to the floor.
- 6 **Brush Motor Circuit Breaker.** Protects brush motor from overheating.
- 7 **Vac Motor Circuit Breaker.** Protects the vac motor from overheating.
- 8 **Handle Adjustment Lever.** Adjusts the main handles angle.
9. **Solution Tank Drain Hose.**
10. **Accessory Tool Connection.** Solution connection for accessory tools.
11. **Accessory Hose Connection.** Hose connection for accessory tool.
12. **Cord Hook.**



ATTACH STRAIN RELIEF/CORD RETAINER TO THE POWER CORD.

1. Make a loop in power cord approximately 12" from strain relief on machine.
2. Slide cord loop through slot in retainer arm. Pull slack cord back through slot to secure. Attach retainer to handle.



OPERATIONS

OPERATING INSTRUCTIONS

A. FILLING THE SOLUTION TANK:

1. Remove clear dome from recovery tank.
2. Lift upper recovery tank from machine and set aside.
3. Use a clean bucket or hose to fill solution tank with hot water. The solution tank holds 4 gallons (15.2 liters) of cleaning solution.

Do not use the recovery tank to fill the solution tank. Sediment in the recovery tank can damage the solution pump and clog the spray jets, rendering the machine inoperable.

4. Add a non-foaming concentrate for use in hot water extractors at the proportions noted on the container.

Note: Periodically operate the extractor with only hot water to remove chemical residue in carpet.

To avoid possible distortion of the polyethylene solution/recovery tanks, DO NOT USE WATER WITH A TEMPERATURE THAT EXCEEDS 140°F (60°C).

5. Place recovery tank back on machine.
6. Place dome on recovery tank. Make sure dome is seated correctly to ensure proper vacuum seal.

Use only the suitable chemicals listed in the Chemical Section. Using incompatible chemicals will damage the machine. Carefully read ingredients on manufacturer's label before using any product in this machine.

OPERATING THE MACHINE

1. Vacuum the carpet and make sure it is cleared of surface debris before cleaning.
2. Plug power cord into a grounded wall outlet.

Defeating the grounding pin on the power cord can result in a severe electrical shock.

3. Turn on the pump, brush and vacuum switches, listening for each motor to turn on.

NOTE: The vacuum and the brush are protected by circuit breakers located on the back panel, below their respective switch.

NOTE: If either of these motors does not respond to being switched on, reset the circuit breakers by pressing them in, and attempt to switch the machine on again.

NOTE: If solution does not dispense in an even pattern across the width of the machine, the spray jet may be clogged. Tilt the machine back and remove the spray tip by pushing in and turning it one quarter turn. Wash it thoroughly, and blow dry.

NOTE: Do not use pins, wire, etc. to clean spray jet nozzle as this will deform the jet and destroy the spray pattern.

6. Begin with the machine at the edge of the carpet. Actuate the solution lever while pulling the machine backwards. Release solution lever at least 12 inches before the end of each cleaning pass. This will ensure all dispensed cleaning solution is extracted from carpet.

While operating machine, check for excessive foam buildup in the recovery tank. If excessive foam is present, add a defoamer solution to recovery tank, or empty tank.

7. Empty recovery tank when approximately 3/4 full. If the recovery tank is overfilled, the water will drain back onto the carpet when the vacuum is switched off.
8. Ventilate area after carpet has been cleaned. Keep children and pets away and do not walk on carpet until it is dry.

A Windblower™ fan can be used to reduce drying time.

OPERATING MACHINE WITH ACCESSORY TOOLS

This extractor is easily adapted for use with Windsor accessory tools: Contact Customer Service for details.

1. Lift flap on the front of the vac shoe and insert hose cuff into the vac shoe, ensuring that there is a tight fit.
2. Attach the solution hose from accessory tool to the brass solution fitting on the front of machine.
3. Switch on the pump and the vacuum. The application of cleaning solution is now controlled by the lever on the accessory tool.

Do not switch on brush when operating the machine with accessory tools. Carpet damage may occur.

NOTE: The solution pump is not intended to run dry. When using the extractor for vacuum pick-up only, insure that the pump switch is turned off.

MAINTENANCE

PROTECT FROM FREEZING

If it becomes necessary to store in temperatures that could drop below 40°F, the pumping system, hoses and valves must be protected from freezing with a methyl hydrate window washer antifreeze solution.

NOTE: Do not use ethylene glycol or cooling system antifreezes.

1. Add one gallon of window washer antifreeze to the supply tank.
2. Turn on pump switch and spray until the antifreeze solution fills the solution lines.
3. Drain the leftover antifreeze from the supply tank. Always allow the unit to reach room temperature before filling with hot water or operating.
4. Before operation be sure to flush system completely. Failure to do so after winterizing machine will damage carpet.

DAILY/REGULAR MAINTENANCE

WARNING

Before making any adjustments or repairs to the machine, disconnect the power cord from the electrical source.

1. Empty unused cleaning solution from the solution tank.
2. Inspect and clean filter screens in solution tank, and on top of tube in recovery tank.
3. Flush pumping system with 1 or 2 gallons of clean, hot water.
4. Check spray jet for full spray pattern.
5. Empty the recovery tank and rinse with clean water.
6. Check for and remove any lint or debris around brush and vac shoe.

PERIODIC MAINTENANCE

1. After every 25 hours of operation, flush a white vinegar solution (ONE quart vinegar to two gallons of water) or anti-browning solution (mixed as directed) through the extractor. This will prevent build-up of alkaline residue in the system.
2. If the spray jet becomes clogged, remove the spray tip, wash it thoroughly, and blow dry.

NOTE: Do not use pins, wire, etc. to clean spray jet nozzle as this will deform the jet and destroy the spray pattern.

3. Periodically inspect all hoses, electrical cables, filters, gaskets and connections on your machine. Frayed or cracked hoses should be repaired or replaced to eliminate vacuum or solution pressure loss.
4. The electrical cable must be well insulated, if the cable insulation is broken or frayed, repair or replace it immediately. Don't take chances with electrical fire or shock.
5. The filter in the bottom of the solution tank must be clean to allow free flow of cleaning solution. The screen filter on the vacuum tube in the recovery tank must be free of lint buildup to ensure full vacuum strength.
6. The dome gasket must be properly seated and free of damage to create the air seal needed to extract water.

MAINTENANCE INSTRUCTIONS

WARNING

Remove machine power cord from electrical source before making any adjustments or repairs to the machine.

WARNING

Only qualified maintenance personnel are to perform repairs.

BRUSH ASSEMBLY

1. Situate machine in order to access bottom cover. Remove screws (6) and bottom cover. Remove screws (3) and belt cover.
2. Loosen nuts at brush motor and slide motor forward to reduce belt tension. Remove belt.
3. Remove lower brush stop on belt side (closest to you with machine upside down) and rotate black plastic finger guard toward rear of machine.
4. Remove one screw holding each brush bearing to brush bracket.
5. With the blade of a screw driver, bend bearings inward enough to disengage locating tabs.
6. Slide brush, axle, and bearing out of brush bracket.
7. Inspect/replace brush and bearings as required. The brush is equipped with yellow wear indicator Bristles. The brush should be replaced when it wears down to the height of the yellow bristles.
8. When reinstalling brush, check belt for proper tension.

MAINTENANCE

SERVICE SCHEDULE

MAINTENANCE	DAILY	WEEKLY	QUARTERLY
Check machine for cord damage	*		
Check recovery dome and gasket for damage and cleanliness	*		
Check brush – should be clean with no lint or strings attached	*		
Inspect vac shoe for blockage; remove fibers with coat hanger, etc.	*		
Check hoses for wear, blockages, or damage	*		
Check handles, switches, and knobs for damage	*		
Check vac motor intake filter and clean	*		
Run one gallon of water through system	*		
Clean out recovery tank and check float valve to make sure it moves freely	*		
Clean out solution tank and remove and clean vacuum intake screen	*		
Clean outside of all tanks and check for damage	*		
Run vac motor for at least one minute to allow motor to dry	*		
Store with dome off tank to allow the tank to dry	*		
Check all bearings for noise		*	
Check all gaskets for wear and leakage		*	
Check vacuum intake screen for damage; replace if necessary		*	
Check pump pressure; observe spray pattern and check with gauge if necessary			*
Check and clean solution screen		*	
Check belts for wear and replace as necessary		*	
Check brush for wear; ensure bristles are not damaged		*	
Check cables for fraying		*	
Check the spray bar (manifold) for damage; replace if broken or bent		*	
Check condition of vac shoe and frame for damage		*	
Check overall performance of machine		*	
Check vac motor carbon brushes			*

MAINTENANCE

TO ACCESS PUMP AND BRUSH MOTOR

1. Situate machine in order to access bottom cover. Remove screws (6) and bottom cover.
2. To remove brush motor, loosen nuts at brush motor and slide motor forward to reduce belt tension. Remove belt. Continue loosening nuts at brush motor until free from brush bracket. Disconnect wires.
3. To remove pump, loosen screws holding pump mounting bracket to casting and remove as one unit. Lift pump and mounting bracket up to gain access to all hose clamps which need to be removed before pump is free from machine. Disconnect wires.

SOLUTION VALVE CABLE ADJUSTMENT

The solution valve cable has been factory set so that action of the solution lever moves the valve from fully closed to fully open. As the machine operates the cable will stretch and the lever will not be able to fully open the valve. The play in the solution lever should be checked periodically and adjusted when needed as described below.

1. Loosen the lock nut at the point where the cable enters the lever housing on the machine handle.
2. Turn the threaded end of the cable sleeve to adjust. Threading the end further into the housing will slacken the cable, increasing the play in the lever. Threading the end out of the housing will tighten the cable, decreasing the play in the lever.
3. Tighten the locking nut against the housing after adjusting the play as required.
4. If there is not enough thread adjustment available, the cable length can be adjusted directly at its connection to the solution valve. This is accessed by removing the back control panel.

SPRAY JET

Note: To prevent a clogged jet due to alkali build-up, the spray system should be flushed with 1 to 2 gallons of clean hot water at the end of each day.

1. Situate machine in order to access bottom cover.
2. The machine is equipped with a "Quick Change" jet that can be easily removed for cleaning. To remove- push jet in and rotate 1/4 turn.
3. Wash jet and blow dry. Do not use pins or wire to remove obstruction as this will change spray pattern.

MAINTENANCE

⚠ WARNING:

ONLY QUALIFIED MAINTENANCE PERSONNEL ARE TO PERFORM THE FOLLOWING REPAIRS.

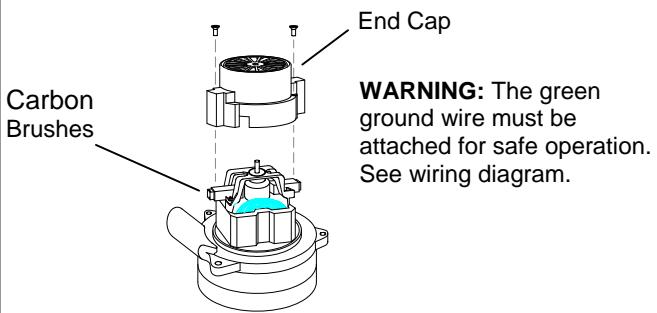
VACUUM MOTOR REPLACEMENT

1. Turn off all switches and unplug machine.
2. Remove recovery tank.
3. Remove the 5 screws holding the vacuum motor cover to the solution tank.
4. Locate the vacuum motor wires and disconnect at the connector.
5. Remove the vacuum motor.
6. Reverse process to install.

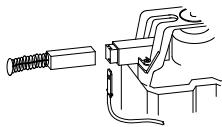
Make sure the excess wire lengths do not get pinched in the gaskets which seal the vac motor. If need be, remove the rear control panel and pull excess lead length out of the vac motor compartment.

The vac motor is protected by a circuit breaker located in the switch panel. The breaker will only trip under conditions of abuse.

Vacuum Motor Carbon Brushes Replacement (Windsor)

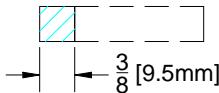


If armature commutator is grooved, extremely pitted or not concentric, the motor will need to be replaced or sent to a qualified service center.



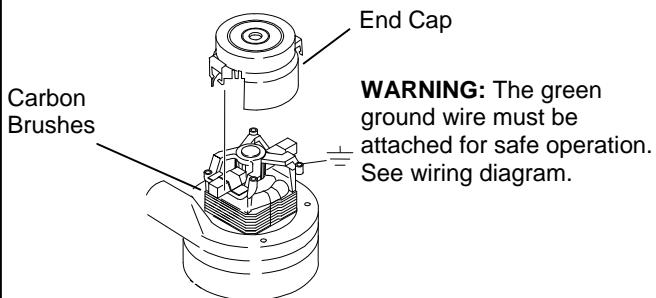
Important:

These brushes wear quicker as the length shortens due to increased heat. Spring inside brush housing will damage motor if brushes are allowed to wear away completely.

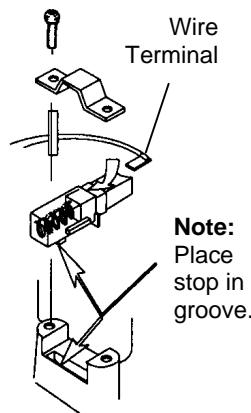


Periodically check the length of the carbon brushes. Replace both carbon brushes when either is less than $3/8$ " (9.5mm) long.

Vacuum Motor Carbon Brushes Replacement (Ametek)

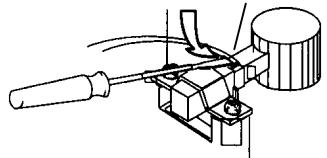


Note: When replacing carbon brushes loosen wire terminal **BEFORE** removing screws on bracket.



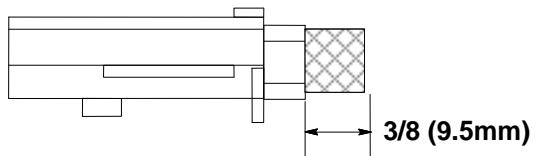
If armature commutator is grooved, extremely pitted or not concentric, the motor will need to be replaced or sent to a qualified service center.

Wire Terminal



Important:

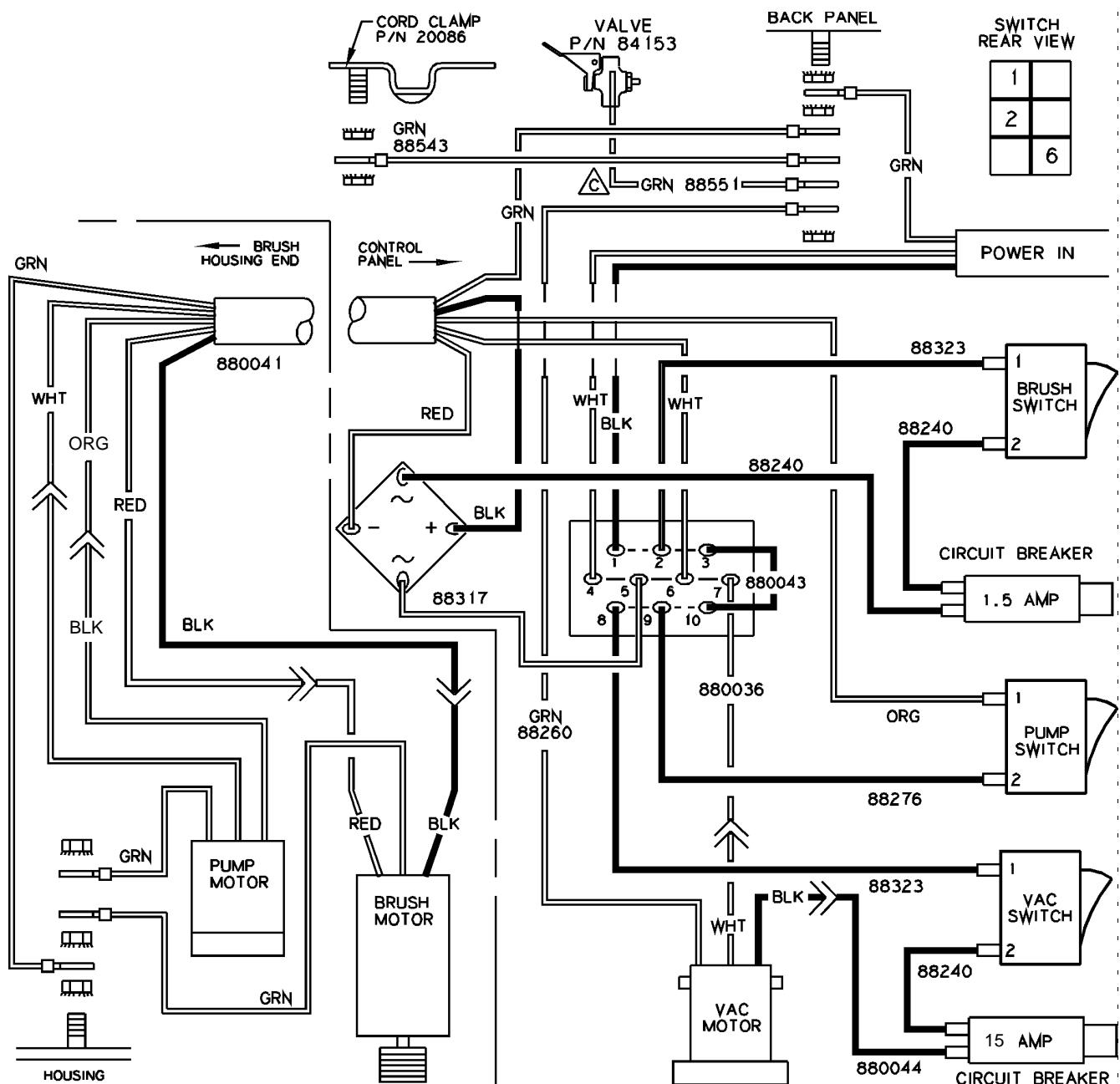
These brushes wear quicker as the length shortens due to increased heat. Spring inside brush housing will damage motor if brushes are allowed to wear away completely.



Periodically check the length of the carbon brushes. Replace both carbon brushes when either is less than $3/8$ " (9.5mm) long.

WIRING DIAGRAM

115V EXPERT



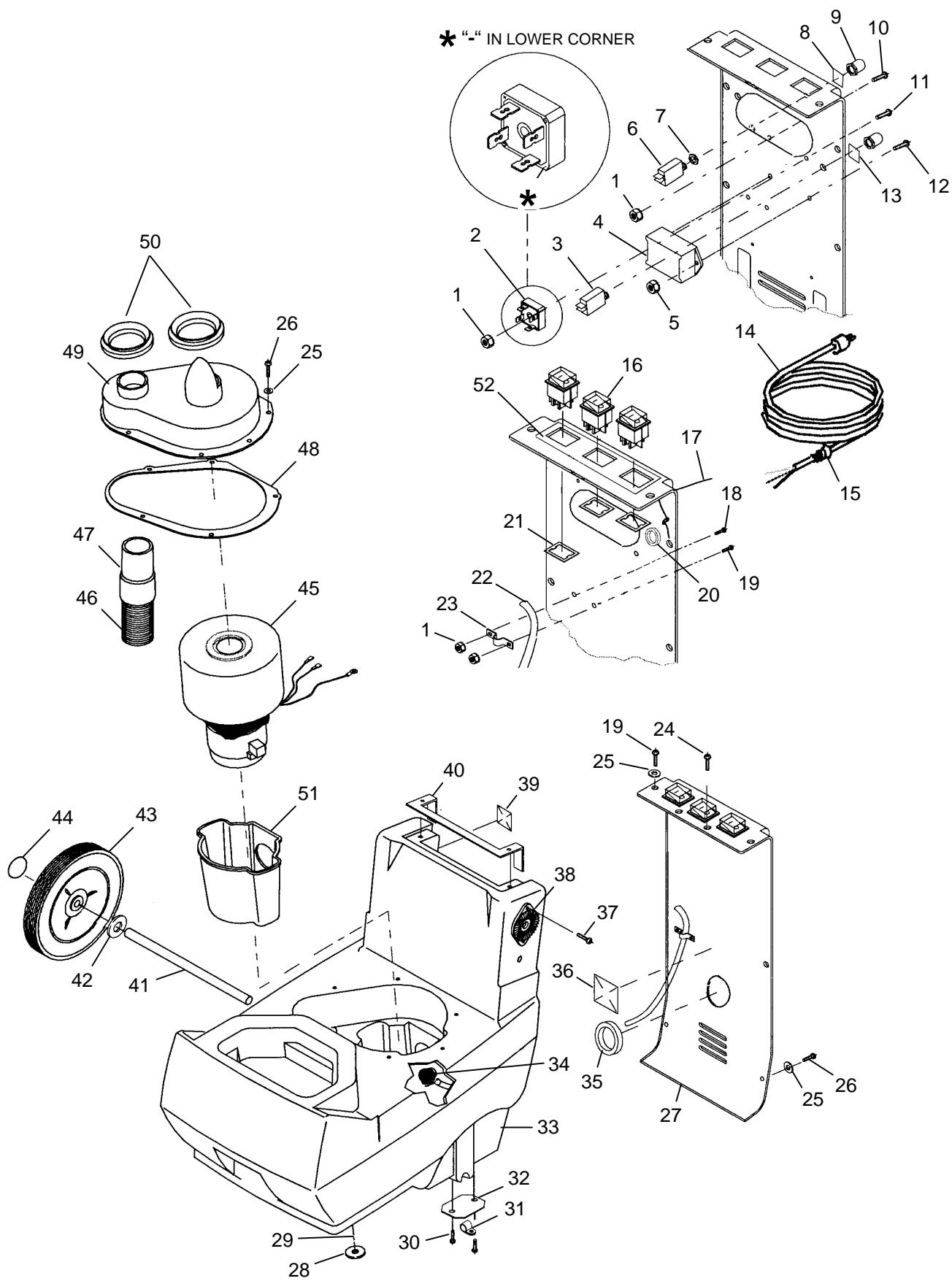
TROUBLESHOOTING CHART

PROBLEM	CAUSE	SOLUTION
No Power, Nothing Runs	Is the cord plugged in.	Plug in cord.
	Circuit breaker tripped in building.	Reset breaker
	Faulty switch.	Call for service.
	Faulty power cord or pigtail.	Call for service.
Vacuum Motor Will Not Run	Vacuum circuit breaker tripped.	Reset breaker
	Faulty main vacuum switch.	Call for service.
	Loose wiring.	Call for service.
	Faulty vac motor.	Call for service.
Vacuum Motor Runs But Suction Is Poor	Debris lodged in vac shoe.	Remove debris from vac shoe.
	Dome gasket defective or missing.	Replace as necessary.
	Vacuum hose cracked or hose cuff loose.	Replace or repair as necessary.
	Recovery tank full / float ball stuck in the up position.	Turn off vac motor. Drain and rinse recovery tank.
Poor Or No Water Flow (Carpet Is Streaky)	Main pump switch off.	Turn on.
	Jets clogged or missing.	Clean using a vinegar /water solution or replace.
	Solution filter clogged.	Drain solution tank and clean solution filter.
	Faulty solenoid.	Call for service.
Brush Does Not Spin	Brush switch off.	Turn on brush switch.
	Brush circuit breaker tripped.	Reset circuit breaker.
	Brush belt broken.	Replace as necessary.
	Faulty brush motor.	Call for service.
Accessory Tool Fitting Difficult to Connect	Corrosion on fitting.	Clean with steel wool. Remove and soak in acetic acid (white vinegar). Lubricate lightly with silicone base lubricant.

TROUBLESHOOTING CHART

PROBLEM	CAUSE	SOLUTION
Brush Not Turning	Belt broken.	Remove belt cover on right side of machine. Inspect belt. Replace if necessary.
	Faulty switch.	Replace.
	Faulty circuit breaker.	Replace
	Faulty brush motor.	If the belt, circuit breaker, and switch have been tested and found to be in good working order, the brush motor may need to be replaced.
Worn Bearings	Squealing or grinding sound in brush housing.	Replace bearings.
Carpet Not Getting Clean	Severe soil conditions	Make several passes at right angles to each other. Use a pre-spray.
Carpet Too Wet	Worn spray jet(s)	Replace spray jets which are producing more than a fine mist.
Carpet Not Getting Wet	Solution filter screen clogged.	Clean solution filter screen located inside lower tank near the front.
	Spray jet(s) clogged.	Clean or replace jets. Do not use a wire to clean jet. Damaged jets will cause over-saturation.
	Pump not running.	Check for and correct any loose wires. Repair or replace.
	Solution valve adjustment.	Adjust solution valve cable until valve operates when handle is pulled. Align slit in jet parallel with center line of brush.

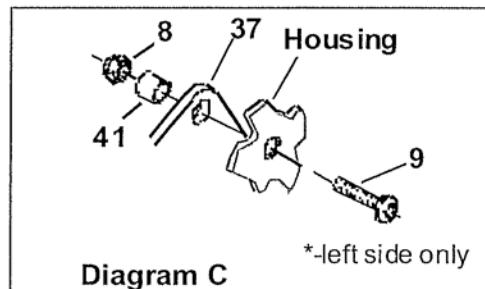
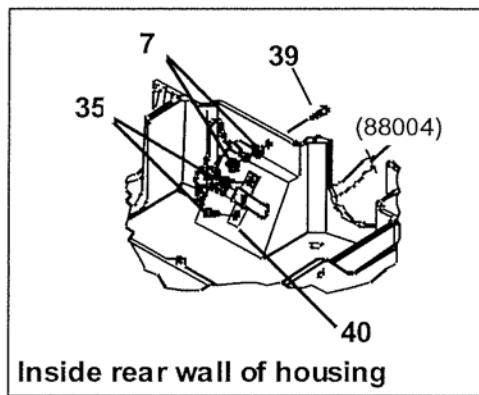
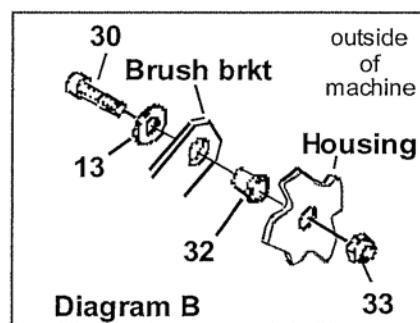
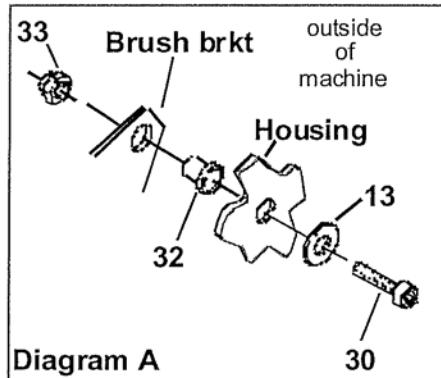
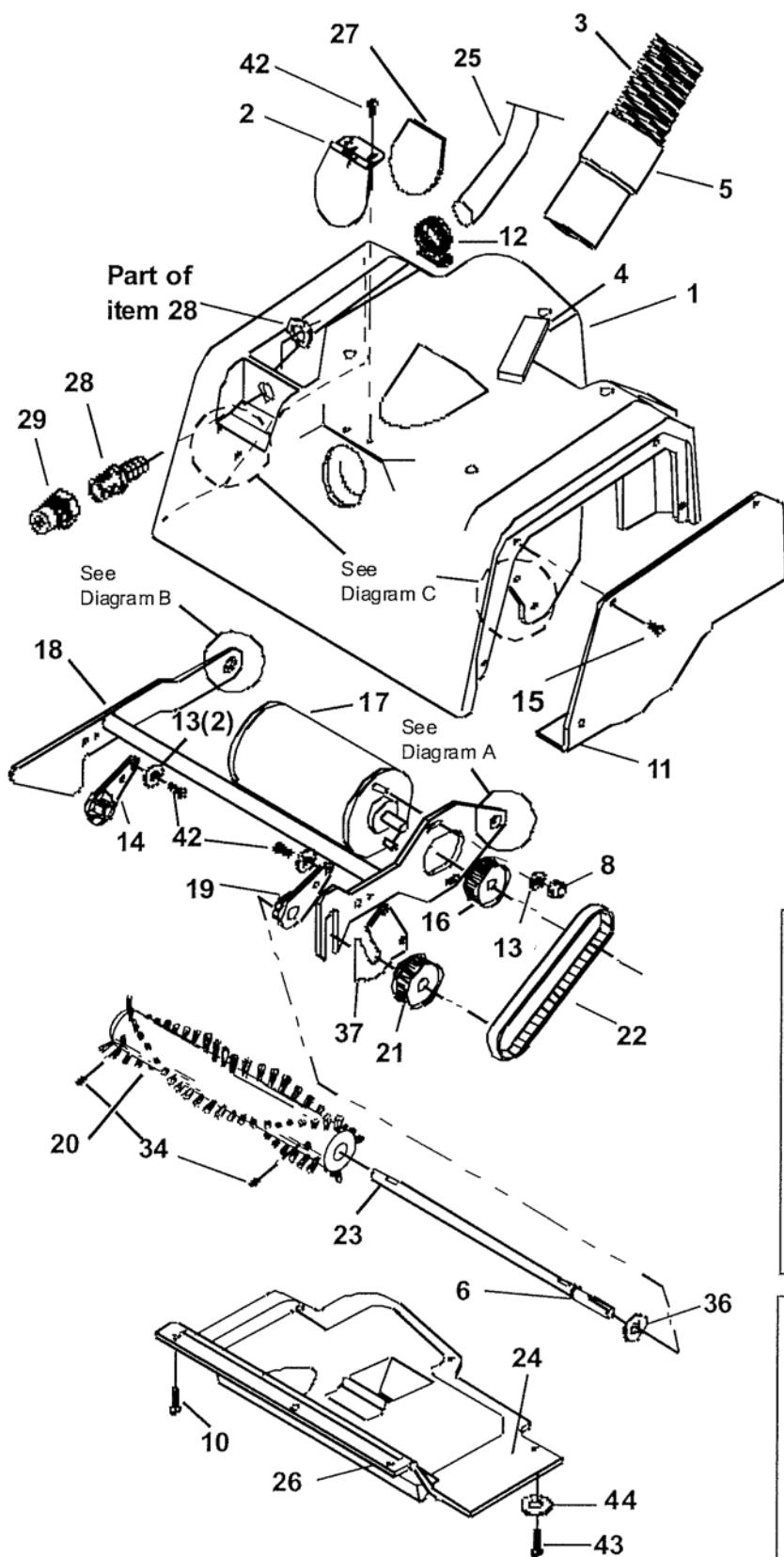
VAC/SOLUTION TANK/CONTROL PANEL



VAC/SOLUTION TANK/CONTROL PANEL PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	57104	4	NUT, #10-32 KEPS		
2	67029	1	RECTIFIER, BRIDGE		
3	14622	1	BREAKER, 1.5A CIRCUIT	10000443236	
4	14020	1	TERMINAL BLOCK		
5	57116	2	NUT, #6-32 KEPS		
6	14700	1	BREAKER, 15A 250 VAC 50 VDC	1000001018	
7	87100	1	WASHER, 3/8 INT. LOCK THIN		
8	500225	1	LABEL, CIRCUIT BREAKER VAC		
9	14942	2	COVER, CIRCUIT BREAKER		
10	70595	1	SCREW, 10-32 X 1 PHMS GRN		
11	70211	1	SCR, 10-32 X 3/4 PH. BLK NYLON		
12	70235	2	SCREW, 6-32 X 1.0 PH BLK NYLON		
13	500226	1	LABEL, CIRCUIT BREAKER BRUSH		
14	23664	1	CORD ASM, 115V		
15	73710	1	STRAIN RELIEF, PG11 METRIC TRUMPET		
16	72069	3	SWITCH, 125V DPDT		
17	27417	1	CORD, 1/8" X 12"		
18	70547	1	SCREW, #10-32 X 1 PPHMS BLK		
19	70532	3	SCREW, 10-32 X 1/2 PHMS BLK		
20	57208	1	NUT PG11 METAL, 1.024 OD X 0.73 ID		
21	27376	3	CLIP, SWITCH RETAINING		
22	880041	1	WIRE ASM, PANEL TO BASE		
23	20086	1	CLAMP, CORD		
24	70222	2	SCR, #8 X 1/2 PPHST BLK		
25	87189	13	WASHER, .2 ID X .5 OD BLK SS		
26	70745	11	SCR, #10-5/8 PPHST HI LO BLK		
27	27787	1	COVER, REAR (CONTROL PANEL)		
28	35182	4	GASKET, FRAME		
29	70393	4	SET SCR, 1/4-20 X 1.25L		
30	70627	4	SCR, 1/4 X 1/2 PPHST HI-LO		
31	20035	1	CLAMP, 7/16 DIA. NYLON UL	1000028686	
32	62717	2	PLATE, AXLE EXP		
33	34331	1	FRAME/SOL EXP II		
34	73864	1	STRAINER, 3/8" NPT 60 MESH		
35	35222	1	GASKET, 2 ID X 2.75 X 3/8 THK PORON		
36	50746	1	LABEL, WIRING DIAGRAM		
37	70517	4	SCREW, 8-32 X 1/2 FHMS SS		
38	51254	2	LOCK, HANDLE EXPERT TANK		
39	50776	1	LABEL, FOR SAFETY		
40	35193	1	GASKET, REAR COVER		
41	03102	1	AXLE, WHEEL		
42	87146	2	WASHER, 1/2 ID X 1" OD X .08" NYLON		
43	89507	2	WHEEL, 8" GREY (HOOSIER)		
44	57196	2	HUBCAP, 1/2" DIA		
45	53771	1	VAC MOTOR ASM, 115V EXP.		
45A	41258	-	BRUSH SET, 120V 5.7 VAC, AMETEK		SERVICE ONLY
45B	140687	-	BRUSH SET, 120V VAC, WINDSOR	1000121568	SERVICE ONLY
46	39276	1	HOSE, 1.5" X 14" VAC		
47	27759	1	CUFF, 1.5" BLACK HOSE		
48	35169	1	GASKET, VAC COVER		
49	27631	1	COVER, VAC MOTOR		
50	35175	2	GASKET, TANK TO VAC COVER		
51	27632	1	CAP, VAC MOTOR		
52	500551	1	LABEL, CONTROL PANEL MAIN		

BRUSH/BRUSH MOTOR/FRAME

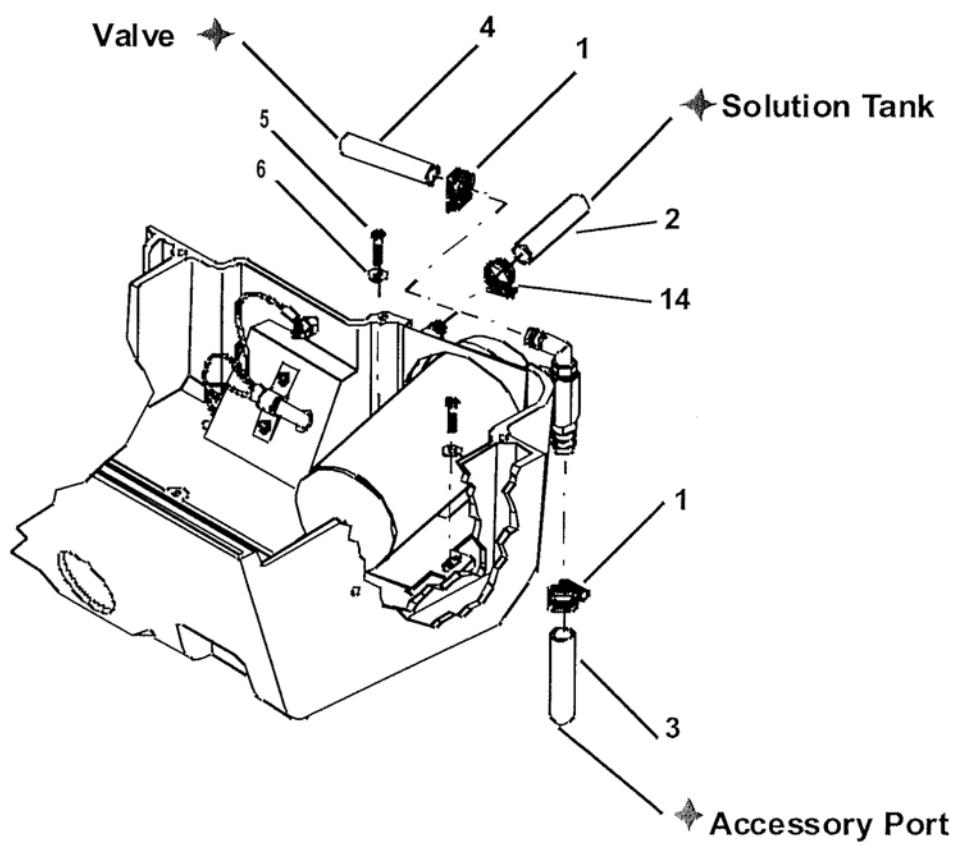
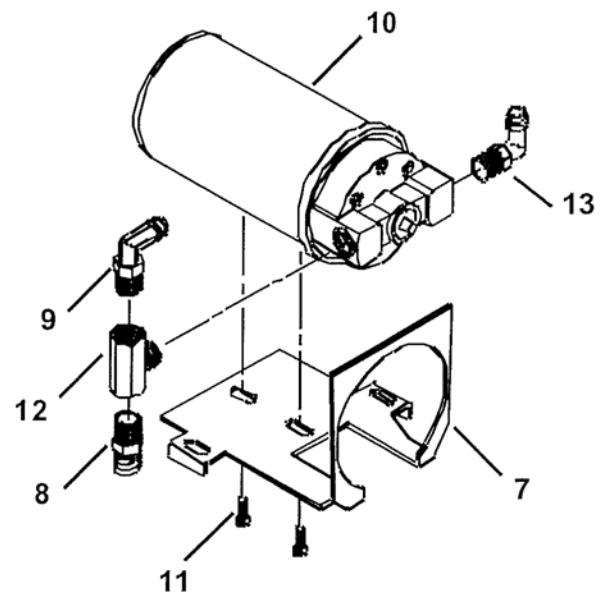


BRUSH/BRUSH MOTOR/FRAME PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	41279	1	HOUSING, BRUSH W/VAC SHOE		
2	27674	1	COVER, ACCESS PORT		
3	39276	REF	HOSE, 1.5 BLK VAC X 14"		
4	35195	1	GASKET, .25 X .75 X 2.00 L		
5	27759	1	CUFF, 1.5" BLACK HOSE		
6	67138	1	RING, 3/8 EXTERNAL SNAP		
7	57104	2	NUT, 10-32 W/STAR WASHER SHOE		
8	57030	6	NUT, 10-32 NYLOCK		
9	70557	4	SCR, 10-32 X 1" FHMS BLK		
10	70532	5	SCR, 10-32 X 1/2 PPHMS BLACK		
11	27636	1	COVER, BELT		
12	20016	1	CLAMP, 1/4 ID HOSE		
13	87139	4	WASHER, 3/16 FLAT		
14	09113	1	BEARING, RIGHT		
15	70740	3	SCR, 10-32 X 1/2 PTHMS BLK		
16	64085	1	PULLEY, MOTOR		
17	53608	1	MOTOR ASM, BRUSH DRIVE		
18	140036	1	BRACKET ASM, BRUSH MOTOR		
19	09114	1	BEARING, LEFT		
20	140040	1	BRUSH		
21	64086	1	PULLEY, BRUSH		
22	11039	1	BELT, BRUSH DRIVE		
23	03084	1	AXLE, BRUSH		
24	35176	1	GASKET, BOTTOM COVER		
25	39468	REF	HOSE, 1/4 ID NYLOBRD X 11.5"		
26	27639	1	COVER, BOTTOM		
27	35171	1	GASKET, ACCESS PORT COVER		
28	140087	1	BULKHEAD, 1/4 MPT X 1/4 BARB		
29	56012	1	NIPPLE, 1/4 FPT QD		
30	70303	2	SHOULDER BOLT, 1/4 OD X 5/8 L		
31	-	-	OPEN		
32	09117	2	BEARING, BRUSH BRACKET		
33	57018	2	NUT, 10-24 HEX LOCK		
34	70578	2	SCREW, 8-32 X 1" FHMS SS		
35	70031	2	SCR, 10-32 X 1/4 PPHMS		
36	87003	1	WASHER, 3/8 ID X 7/8 OD SS		
37	62556	1	PLATE, GUARD ON LEFT SIDE ONLY		
38	-	-	OPEN		
39	70595	1	SCR, 10-32 X 1.0 PHMS GRN		
40	20086	1	CLAMP, CORD		
41	73781	4	HOSE, 5/16 X 3/16 ID CLR VINYL		
42	70351	4	SCR, 10-32 X 3/8 HHTR W/STAR		
43	70604	1	SCR, 10-32 X 5/8 PHMS BLK		
44	87189	1	WASHER, .2 ID X .5 OD BLK SS		

NOTE: The left and right sides of the machine are assigned as if standing behind the machine in the operator's position.

PUMP ASSEMBLY

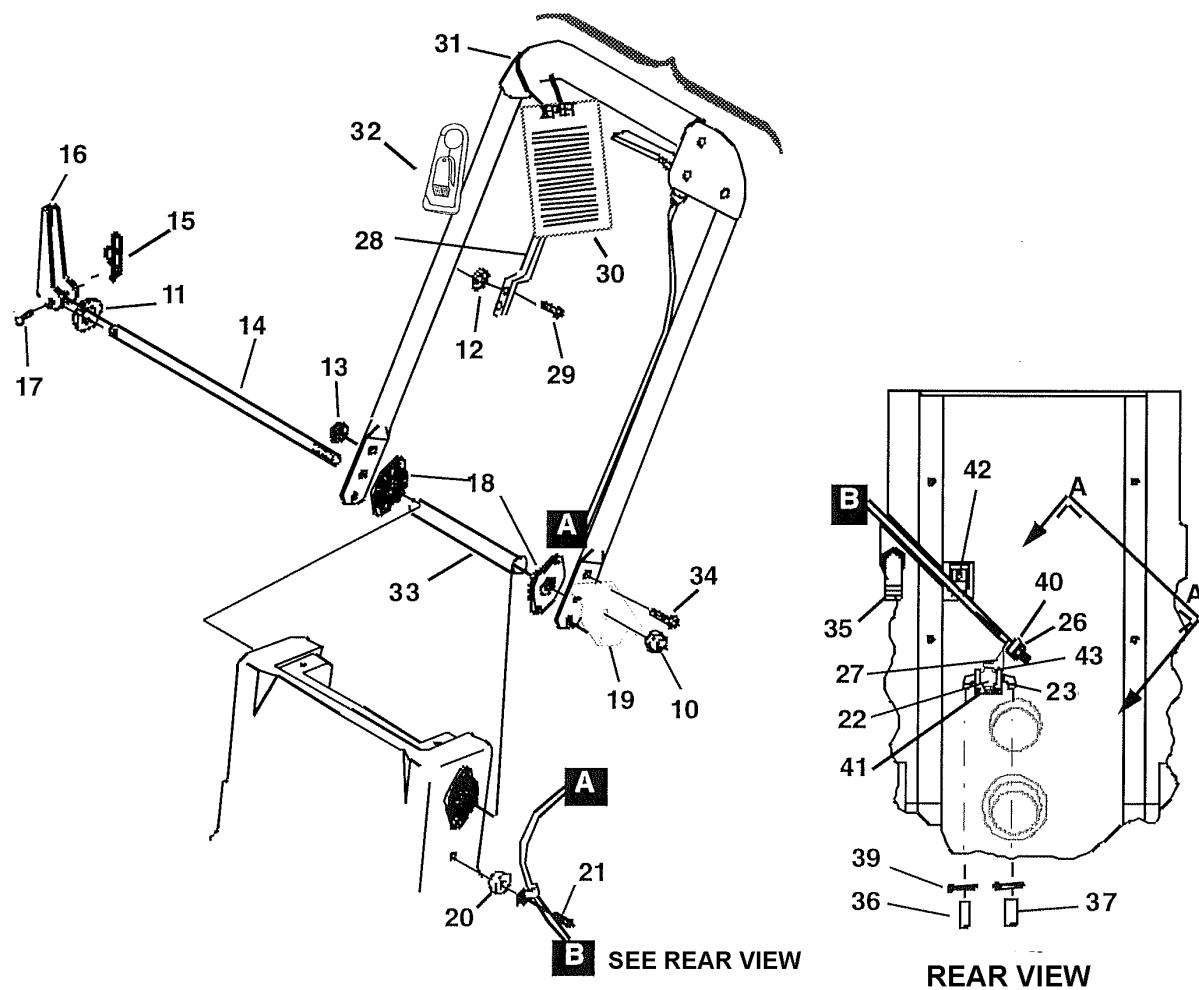
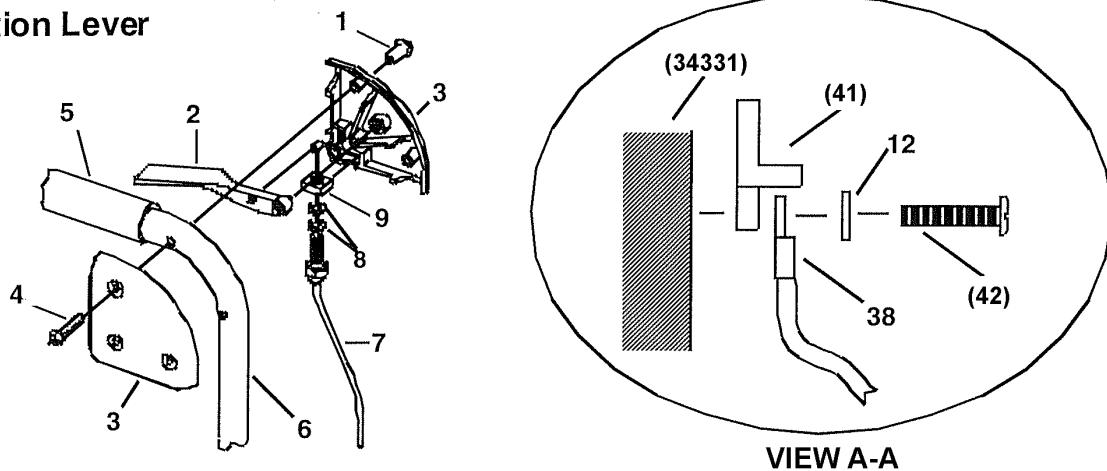


PUMP ASSEMBLY PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	20016	2	CLAMP, 1/4 ID HOSE		
2	39510	1	HOSE, 3/8 WIREBOUND X 3"		
3	39468	1	HOSE, 1/4 NYLOBRAID X 11.5"		
4	39508	1	HOSE, 1/4 NYLOBRAID X 15"		
5	70484	2	SCR, 10-32 X 5/8 PPHMS SS		
6	87016	2	WASHER, #10 LOCK EXT. STAR		
7	140034	1	BRACKET, PUMP		
8	40009	1	HOSEBARB, 1/4 MPT X 1/4		
9	40065	1	HOSEBARB, 1/4 MPT X 1/4 X 90°		
10	65164	1	PUMP ASM, EXPERT		
11	70581	2	SCR, 10-32 X 3/8 HHTFW/WASH		
12	78024	1	TEE, 1/4 BRANCH		
13	40033	1	HOSEBARB, 1/4 MPT X 3/8 90°		
14	20042	1	CLAMP, 3/8 (D-SLOT)		

SOLUTION LEVER/MAIN HANDLE

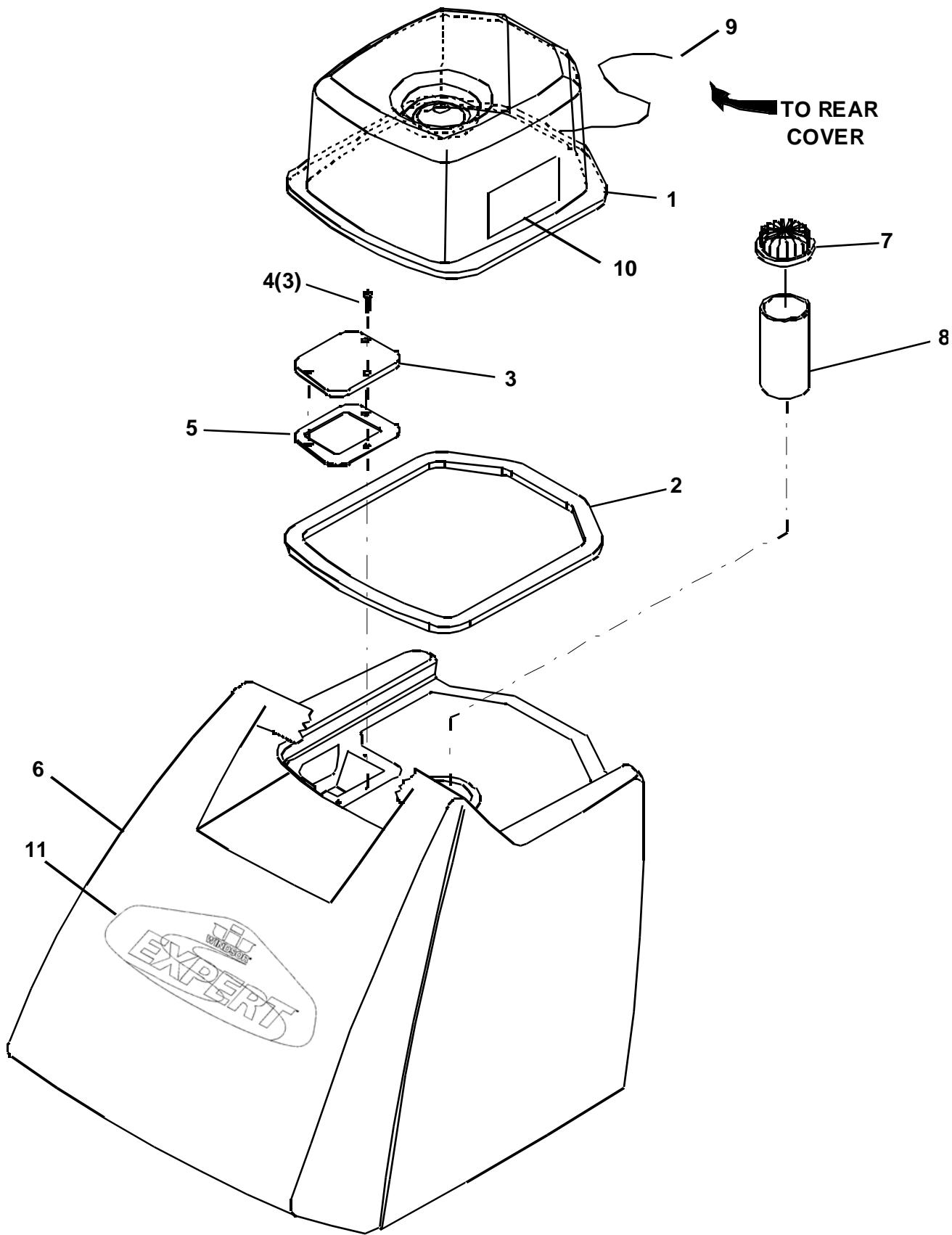
Solution Lever



SOLUTION LEVER/MAIN HANDLE PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO.	NOTES:
1	57238	3	NUT, 10-24 JOINT CONNECTOR BLK		
2	51251	1	LEVER, SOLUTION		
3	41302	2	HOUSING, SOLUTION LEVER		
4	70537	3	SCR, 10-24 TRUSS HEAD BLK		
5	36046	1	GRIP, HANDLE X 13"		
6	38247	1	HANDLE		
7	27785	1	CABLE, VALVE SOLUTION 27-1/2 LG		
8	87029	1	WASHER, 5/16 FLAT SAE	441847	WAS 57138 (QTY 1)
9	57234	1	NUT, 3/8-16 SQUARE		
10	57022	1	NUT, 3/8-16 HEX NYLOCK		
11	87080	1	WASHER, .52 1.25 FLAT PLTD		
12	87016	3	WASHER, #10 LOCK		
13	87139	2	WASHER, 3/16 FLAT USS	441847	(QTY WAS 3)
14	67397	1	ROD, HANDLE ADJUSTMENT EXP II		
15	80604	1	RING, RUE COTTER 1/4"		
16	51142	1	LEVER, HANDLE LOCK		
17	66133	1	PIN, CLEVIS		
18	51184	2	LOCK, HANDLE ADJUSTMENT		
19	62716	1	PLATE, STOP EXPT		
20	73735	1	SPACER, 1.0 OD X .26 ID X 1 BLK NYL		
21	70556	1	SCREW, 1/4-20 X 1.5 SS		
22	84153	1	VALVE, KINGSTEN		
23	40065	2	HOSEBARB, 1/4 MPT X 1/4 90°		
24	-	-	OPEN		
25	-	-	OPEN		
26	57018	1	NUT, 10-24 LOCK		
27	89144	1	WELDMENT, LEVER VALVE EXP		
28	41144	1	HOOK, CORD		
29	70361	2	SCR, #10-32 X 1/2 PHTR		
30	50729	1	CARD, INSTRUCTION		
31	27417	1	CORD, 1/8 X 12"		
32	73169	1	STRAIN RELIEF, CORD HOOK		
33	99620	7"	HEAT SHRINK, 3/8 ID UL/CSA		
34	70031	4	SCR, 10-32 X 1/4 PPHMS PLTD		
35	40043	1	HOSEBARB, 3/8 MPT X 3/8 90° NYLON BLK		
36	39508	1	HOSE, 1/4 NYLOBRAID 15"		
37	39507	1	HOSE, 1/4 NYLOBRAID 17"		
38	88551	1	WIRE ASM, 19" GRN/18 78008 X 78008		
39	20016	2	CLAMP, 1/4 ID HOSE		
40	73866	1	SPACER, 1/2 OD X .219 ID X 1/2 NYLON		
41	140308	1	BRACKET, VALVE EXPERT		
42	70745	3	SCR, #10-5/8 PPHST HI LO BLK		
43	66086	1	PIN, ROLL 3/16 X 5/8		

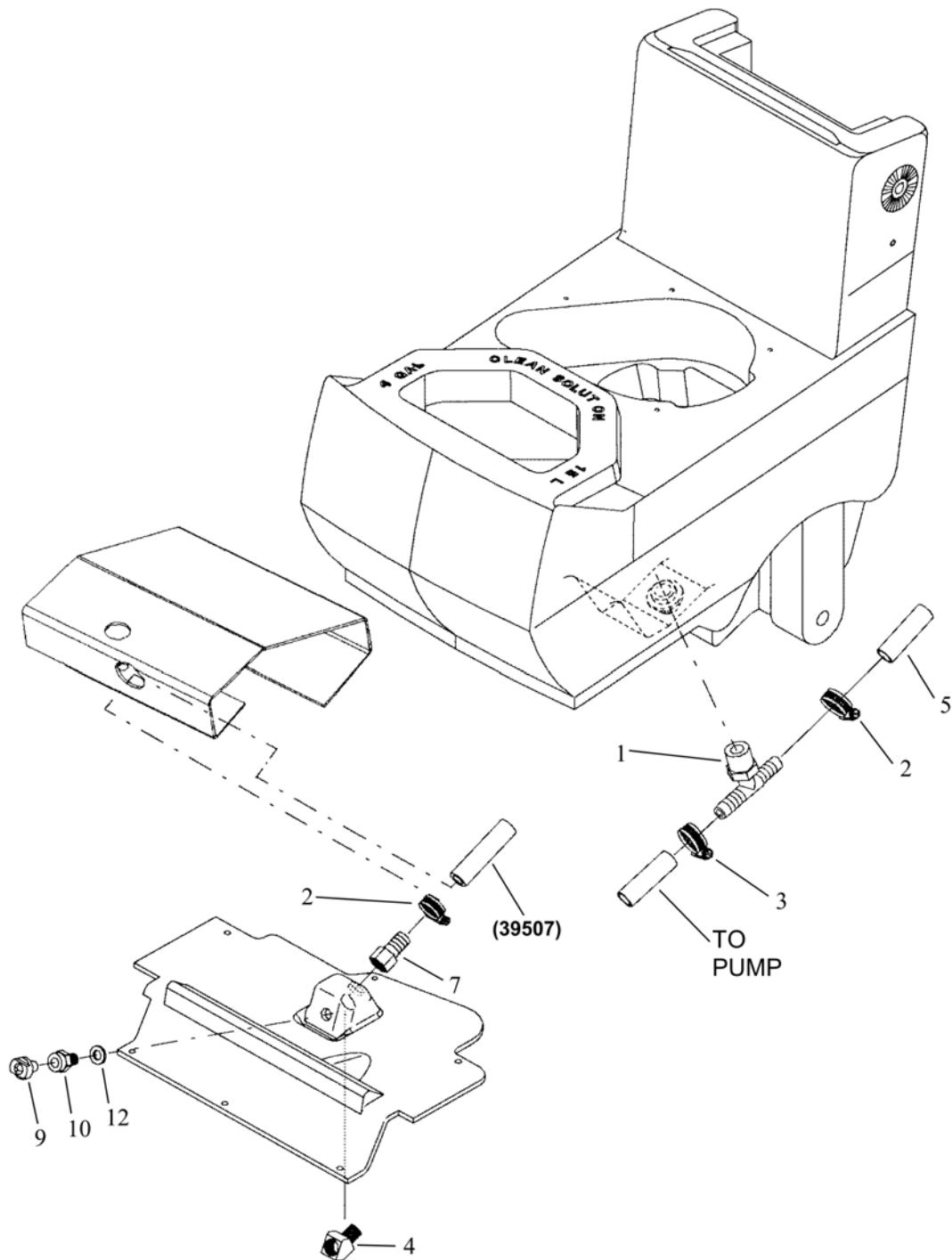
RECOVERY TANK



RECOVERY TANK PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	28050	1	DOME		
2	35178	1	GASKET, DOME		
3	62465	1	PLATE, COVER		
4	70114	3	SCR, 10-32 X 3/4 POLYFAST		
5	35167	1	GASKET, COVER		
6	75212	1	TANK, RECOVERY		
7	34140	1	FILTER, VAC INTAKE		
8	78162	1	TUBE, 1.5 PVC X 4.88"		
9	27417	1	CORD, 1/8 X 1/2"		
10	500009	1	LABEL, WARNING		
11	500016	1	LABEL, EXPERT		

SOLUTION PLUMBING/SPRAY JET



SOLUTION PLUMBING/SPRAY JET PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	40069	1	HOSEBARB, 3/8 NPT X 3/8 TEE		
2	20016	2	CLAMP, 1/4 ID HOSE		
3	20042	1	CLAMP, 3/8 HOSE		
4	31028	1	ELBOW, 1/8 45° STREET		
5	39509	1	HOSE, 3/8" CLEAR X 15.5"		
6	62800	1	PLATE, GUARD EXPERT		
7	40064	1	HOSE BARB, 1/8" FPT X 1/4"		
8	-	-	OPEN		
9	44066	1	JET, BRASS MINI-QUICK		
10	44052	1	JET BODY, MINI-QUICK W/SEAL		
11	-	-	OPEN		
12	87185	1	WASHER, 3/8 SEALING X 3/4 OD		

SPARE PARTS AND ACCESSORIES

PART NO.	DESCRIPTION	SERIAL # FROM
11039	BELT, BRUSH DRIVE	
35178	GASKET, DOME	
35171	GASKET, ACCESSORY PORT	
140040	BRUSH, EXP	
44066	JET, 11004 BRASS MINI-QUICK	
44051	JET SEAL, MINI-QUICK	
44052	JET BODY, MINI-QUICK W/SEAL	
35175	GASKET, TANK TO VAC COVER	
50729	INSTRUCTION CARD	
09114	BEARING, LEFT	
09113	BEARING, RIGHT	
64085	BRUSH MOTOR PULLEY	
64086	BRUSH PULLEY	
35176	GASKET, BOTTOM COVER	
73169	STRAIN RELIEF, CORD HOOK	
34140	FILTER, VAC INTAKE	
41258	BRUSH SET, 120V 5.7 VAC, AMETEK	
140687	BRUSH SET, 120V VAC, WINDSOR	*

ACCESSORIES

89227	STANDARD WAND
SPW	SPOTTING WAND
HT	HANDTOOL W/1/4 MQD
DHTK	DHT ACCESSORY KIT
DDH	DOUBLE DRY HAND TOOL